

WHAT IS CLAIMED IS:

1. A method for treating a wound by removing a protease from the site of the wound, said method comprising the steps of:

5 (a) selecting a protein-containing fibrous component capable of removing a protease;

(b) forming a dressing from said protein-containing fibrous component;

10 (c) selecting at least one protein from the group consisting of growth factors, cytokines, and chemokines for application to said wound site;

(d) applying said dressing and said protein to said wound and allowing at least a portion of said protease found at said wound site to be attracted to and entrapped by said protein-containing fibrous component; and

15 (e) removing said dressing from said wound so that at least a portion of said protease is removed from said wound site.

2. The method of claim 1 wherein said protein-containing fibrous component comprises silk fiber.

20 3. The method of claim 1 wherein said protein-containing fibrous component comprises wool fiber.

4. The method of claim 1 wherein said protein-containing fibrous component comprises a protein-containing fabric.

25 5. The method of claim 4 wherein said protein-containing fibrous component comprises silk gauze.

6. The method of claim 1 wherein said dressing is formed from a non-protein-containing material in addition to the protein-containing fibrous component.

7. The method of claim 6 wherein said non-protein-containing material comprises cotton fibers.

30 8. The method of claim 7 wherein said cotton fibers are

interwoven with said protein-containing fibrous component.

9. The method of claim 8 wherein said protein-containing fibrous component comprises silk fibers.

5 10. The method of claim 1 wherein said protease comprises elastase.

11. The method of claim 1 wherein said protease comprises neutrophil elastase.

12. The method of claim 1 wherein said protease comprises gelatinase.

10 13. The method of claim 1 wherein said protease comprises gelatinase B (MMP-9).

14. The method of claim 1 wherein said protease comprises plasmin.

15 15. The method of claim 1 wherein said protein is applied to said wound site as a component separate from said dressing.

16. The method of claim 15 wherein said protein is applied to said wound site in the form of an ointment, lotion, solution, or gel.

17. The method of claim 1 wherein said protein is included as part of the wound dressing itself.

20 18. The method of claim 1 wherein said growth factor is chosen from the group consisting of platelet-derived growth factors, vascular endothelial growth factors, transforming growth factors, fibroblast growth factors, and epidermal growth factors.

25 19. A method for treating a wound by removing a protease from the site of the wound, said method comprising the steps of:

(a) applying a wound dressing and at least one growth factor to said wound site wherein said wound dressing comprises a protein-containing fibrous component capable of removing said protease; and

30 (b) allowing said wound dressing to withdraw and entrap said protease so that healing of said wound is promoted.

20. The method of claim 19 wherein said growth factor is applied to said wound site as a component separate from said dressing.

21. The method of claim 20 wherein said growth factor is applied to said wound site in the form of an ointment, lotion, solution, or gel.

5 22. The method of claim 19 wherein said growth factor is included as part of the wound dressing itself.

23. The method of claim 19 wherein said growth factor is chosen from the group consisting of platelet-derived growth factors, vascular endothelial growth factors, transforming growth factors, fibroblast growth factors, and epidermal growth factors.

10 24. A wound dressing for removing a protease from the site of the wound and supplying a growth factor to said wound site, said dressing comprising:

- 15 (a) a protein-containing fibrous component; and
(b) at least one growth factor

wherein a protease found at said wound site may be attracted to and entrapped by said protein-containing fibrous component.

25 25. The wound dressing of claim 24 wherein said protein-containing fibrous component comprises silk fiber.

20 26. The wound dressing of claim 24 wherein said protein-containing fibrous component comprises wool fiber.

27. The wound dressing of claim 24 wherein said protein-containing fibrous component comprises a protein-containing fabric.

25 28. The wound dressing of claim 27 wherein said protein-containing fibrous component comprises silk gauze.

29. The wound dressing of claim 24 wherein said dressing further comprises a non-protein-containing material in addition to the protein-containing fibrous component.

30 30. The wound dressing of claim 29 wherein said non-protein-containing material comprises cotton fibers.

31. The wound dressing of claim 30 wherein said cotton fibers are interwoven with said protein-containing fibrous component.

32. The wound dressing of claim 24 wherein said growth factor is chosen from the group consisting of platelet-derived growth factors, vascular endothelial growth factors, transforming growth factors, fibroblast growth factors, and epidermal growth factors.

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